

#### INFORMATION DISCLOSURE STATEMENT BY APPLICANT Sheet 1 of 6

Docket No. SMY 041.01-

Applicant:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

Serial No: Filed:

09/893,256

For:

June 27, 2001

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

			U.S. PA	U.S. PATENT DOCUMENTS					
Exam Inits	Cite No.	Patent Number	Kind Code	Patentee or Applicant Name	Issue Date				
		20010000821	A1	KOLODNER, ET AL.	05/03/01				
CO		20010047361	A1	MARTIN, ET AL.	11/29/01				
col		20010049726	A1	COMEAU, ET AL.	12/06/01				
_co		20020052926	A1	BUSH, ET AL.	05/02/02				
CO		20020073103	A1	BOTTOMLEY, ET AL.	06/13/02				
CO		20020095453	A1	STEENSGAARD	07/18/02				
CO		20030005025	A1	SHAVIT, ET AL.	01/02/03				
CO		20030005029	A1	SHAVIT, ET AL.	01/02/03				
CO		20040088702	A1	GARTHWAITE, ET AL.	05/06/04				
CO		4,584,640	B1	MACGREGOR, ET AL.	4/22/86				
-co		4,775,932	B1	OXLEY, ET AL.	10/4/88				
_co_		4,912,629	B1	SHULER, JR.	05/27/90				
CÕ		4,989,134	B1	SHAW	01/29/91				
co		5,088,036	B1	ELLIS, ET AL.	02/11/92				
co		5,241,673	B1	SCHELVIS	09/31/93				
co		5,274,804	B1	JACKSON, ET AL.	12/28/93				
CO		5,355,483	B1	SERLET	10/11/94				
CO		5,446,901	B1	OWICKI, ET AL.	08/29/95				
cō		5,577,246	B1	PRIDDY, ET AL.	11/19/96				
CO		5,692,185	B1	NILSEN, ET AL.	11/25/97				

	FOREIGN PATENT DOCUMENTS						
Exam Inits	Cite No.	Су	Number	Kind Code	Patentee or Applicant Name	Publication Date	т
		<del> </del>	<u> </u>				
			<del> </del>				
		ļ					
		<u> </u>		<del></del>			$\Box$
			<del> </del>				Ш

Examiner Signature /Camquy Truong/	Date Considered	05/03/2006
------------------------------------	-----------------	------------

OIPE 425

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT Sheet 2 of 6

Docket No. SMY 041.01

Applicant:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

Serial No:

09/893,256

Filed:

June 27, 2001

For:

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

			U.S. PA	TENT DOCUMENTS	
Exam Inits	Cite No.	Patent Number	Kind Code	Patentee or Applicant Name	Issue Date
CO		5,692,193	B1	JAGANNATHAN, ET AL.	11/25/97
CQ		5,893,121	B1	EBRAHIM, ET AL.	4/06/99
CQ		5,930,807	B1	EBRAHIM, ET AL.	07/27/99
-co		5,950,205	B1	AVIANI, JR.	09/07/99
_co		6,047,295	B1	ENDICOTT, ET AL.	04/04/00
CÕ		6,052,699	B1	HUELSBERGEN, ET AL.	04/18/00
CQ		6,081,665	B1	NILSON, ET AL.	06/22/00
CO		6,192,517	B1	AGESEN, ET AL.	02/20/01
col		6,226,653	B1	ALPERN, ET AL.	05/01/01
CO		6,240,422	B1	ATKINS, ET AL.	5/29/01
CO		6,249,793	B1	PRINTEZIS, ET AL.	06/19/01
CO		6,253,215	B1	AGESEN, ET AL.	06/26/01
_co		6,286,016	B1	HELLER, ET AL.	9/04/01
co		6,289,360	B1	KOLODNER, ET AL.	09/11/01
CO		6,304,949	B1	HOULDSWORTH	10/16/01
CO		6,314,436	B1	HOULDSWORTH	11/06/01
co		6,314,478	B1	ETCHEVERRY	11/06/2001
CO		6,317,756	B1	KOLODNER, ET AL	11/13/01
co		6,321,240	B1	CHILIMBI, ET AL.	11/27/01
CO		6,338,073	B1	HOULDSWORTH, ET AL.	01/08/02

FOREIGN PATENT DOCUMENTS							
Exam Inits	Cite No.	Су	Number	Kind Code	Patentee or Applicant Name	Publication Date	Т
		<del> </del>	<del> </del>				
							H
			<del></del>				무
							Ť

Examiner Signature	/Camquy Truong/	Date Considered	05/03/2006
-----------------------	-----------------	--------------------	------------



#### INFORMATION DISCLOSURE STATEMENT BY APPLICANT Sheet 3 of 6

Docket No. SMY 041.01

Applicant:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

Serial No:

09/893,256

Filed: For:

June 27, 2001

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

			U.S. PA	TENT DOCUMENTS	
Exam Inits	Cite No.	Patent Number	Kind Code	Patentee or Applicant Name	Issue Date
CQ.		6,341,293	B1	HENNESSEY	01/22/02
cō		6,374,339	B1	IIVONEN	04/16/002
CO		6,377,984	B1	NAJORK, ET AL.	04/23/02
co		6,381,735	B1	HUNT	04/30/02
co		6,411,964	B1	IYER, ET AL.	06/25/2002
cõ		6,415,302	B1	GARTHWAITE, ET AL.	07/02/02
CO		6,427,154	B1	KOLODNER, ET AL.	07/30/02
co		6,434,575	B1	BERRY, ET AL.	08/13/02
co		6,480,862	B1	GALL	11/12/02
co		6,493,730	B1	LEWIS, ET AL.	12/10/02
co		6,526,422	81	FLOOD, ET AL.	02/25/03
CQ.		6,542,911	B2	CHAKRABORTY, ET AL.	04/01/03
co		6,560,619	B1	FLOOD, ET AL.	05/06/03
<del>co</del>		6,571,260	B1	MORRIS	05/27/03
co		6,651,101	B1	GAI, ET AL.	11/18/03
cõ		6,671,707	B1	HUDSON, ET AL.	12/30/03
CÕ		6,763,452	B1	HOHENSEE, ET AL.	07/13/04

FOREIGN PATENT DOCUMENTS							
Exam Inits	Cite No.	Су	Number	Kind Code	Patentee or Applicant Name	Publication Date	Т
		<del> </del> -					
		-{	<del></del>				
		<del> </del>					
		<del> </del>					
		·	<del> </del>				
	ļ. <del>.</del>	<del>                                     </del>	<del> </del>				
		. [					

Examiner Signature	/Camquy Truong/	Date Considered	05/03/2006
		Odnoidered	

#### FORMATION DISCLOSURE STATEMENT BY APPLICANT Sheet 4 of 6

Docket No. SMY 041.01

pplicant:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

Serial No:

09/893,256

Filed:

June 27, 2001

For:

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

	0	THER PRIOR ART - NON PATENT LITERATURE AND DOCUMENTS			
Exam Inits	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the articles (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т		
CÕ		ADITY, ET AL., "Garbage Collection for Strongly-Typed Languages using Run- Time Reconstruction", ACM, 1994, 16-20			
CQ		APPEL, "Simple Generational Garbage Collection and Fast Allocation", Software Practice and Experience, 19(2), 1989, 171-183			
CÕ		ARORA, ET AL., "Thread Scheduling for Multiprogrammed Multiprocessors", Dept. of Computer Science, Uni. of Texas, 1998, Austin			
Cδ		BAKER, "List Processing in Real Time on a Serial Computer", Communications of the ACM 21, April 1978, 280-294			
CQ		BIBOLET, ET AL., "Asynchronous Service Routine Invocation with Safely Serialized Work Queue", IBM Tech. Disclosure Bulletin, Vol. 25, No. 8, January 1983, IBM Corp.			
CÕ		BLELLOCH, ET AL., "On Bounding Time and Space for Multiprocessor Garbage Collection", Computer Science Department, Carnegie Mellon University, Date Unknown			
CÕ		BLUMOFE, "Scheduling Multithreaded Computations by Work Stealing", University of Texas, 1998, Austin			
CQ		BOEHM, "Simple Garbage Collector-Safety", ACM, May 1996, 89-98			
CQ		CHASE, ET AL., "Analysis of Pointers and Structures", Proceedings of the ACM SIGPLAN '90 Conference on Programming Language Design and Implementation, June 20-22, 1990, 296-310, White Plains, NY			
CÕ		COHEN, "Garbage Collection of Linked Data Structures", ACM, Computing Surveys, Vol. 13, No. 3, September 1981, 341-367			
CÕ		COURTEMANCHE, "MultiTrash, a Parallel Garbage Collector for MultiScheme", Thesis for MIT, 1986			
CQ		COURTS, "Improving Locality of Reference in a Garbage-Collecting Memory Management System", Communications of the ACM, Vol. 31, No. 9, September 1988, 1128-1138			
Exami	ino-	/2	二		
⊏xamı	mer	/Camquy Truong/   Date   05/03/2006			

Examiner /Camquy Truong/ Signature	Date Considered	05/03/2006
---------------------------------------	--------------------	------------

### **INFORMATION DISCLOSURE STATEMENT** BY APPLICANT Sheet 5 of 6

Docket No. SMY 041.01

Applicant: Se al No:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

09/893,256 June 27, 2001

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

Examiner

Signature

/Camquy Truong/

2195

	0	THER PRIOR ART – NON PATENT LITERATURE AND DOCUMENTS	
Exam Inits	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the articles (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т
CÕ		CRAIG, ET AL., "nanoPortean: Scalable System Software for a Gigabit Active Router", IEEE INFOCOM 2001, 2001, 51-59	
CÕ		DEMERS,E T AL., "Combining Generational and Conservative Garbage Collection: Framework and Implementations", In Conf. Rec. of 17th Annual ACM Symposium, January 1990, 261-269, ACM Notices	
CÕ		DOLIGEZ, ET AL., "Portable Unobtrusive Garbage Collection for Multiprocessor Systems", Association for Computing Machinery, 1994	
cō		ENDO, T., ET AL., "A Scalable Mark-Sweep Garbage Collector on Large-Scale Shared-Memory Machines", Proceedings of the 1997 ACM/IEEE Supercomputing 97 Conference, Nov. 15-21, 1997, San Jose, CA	
CÕ		HALSTEAD, "Implementation of Multilisp: Lisp on a Multiprocessor", MIT, Lab. for Computer Science, 1984, Cambridge	
CÕ		HICKEY, ET AL., "Performance Analysis of On-the-Fly Garbage Collection", Communication of the ACM, Vol. 27, No. 11, November 1984, 1143-1154	
CÕ		HOLZLE, URS, "A Fast Write Barrier for Generational Garbage Collectors", Workshop on Garbage Collection in Object Oriented Systems, October 1993	
CÕ		HUDAK, ET AL., "Garbage Collection and Task Deletion in Distributed Applicative Processing Systems", ACM, 1982, 168-178	
CÕ		ICHIYOSHI, ET AL., "A Shared-Memory Parallel Extension of KLIX and Its Garbage Collection", Proceedings of GCS '94 Workshop on Parallel Logic Programming, 1994, 113-126	
CÕ		JONES AND LINS, "Garbage Collection: Algorithms for Automatic Dynamic Memory Management", 1996, 165-179, John Wiley and Sons, NY	
CÕ		KARLSSON, "Resume of Martin Karlsson, Internet Document, Online!, page 1, line 22; line 27", <a href="http://user.it.uu.se/(martink/">http://user.it.uu.se/(martink/</a> > Retrieved on 2002-10-30, May-August 1999	
CÕ		MASSALIN, ET AL., "A Lock-Free Multiprocessor OS Kernel, Dept. of Computer Science", Columbia University Technical Report No. CUCS-005-91, June 19, 1991	

Date



## NFORMATION DISCLOSURE STATEMENT BY APPLICANT Sheet 6 of 6

Docket No. SMY 041.01

Applicant:

Nir N. Shavit, Steven K. Heller and Christine H. Flood

erial No:

09/893,256 June 27, 2001

For:

LOAD-BALANCING QUEUES EMPLOYING LIFO/FIFO WORK STEALING

Examiner:

C. Truong

Art Unit:

	OTHER PRIOR ART - NON PATENT LITERATURE AND DOCUMENTS					
Exam Inits	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the articles (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т			
CQ		MOON, "Garbage Collection in a Large Lisp System", Conference Record of the 1984 ACM Symposium on LISP and Functional Programming, August 1984, 235-246, Austin, TX				
CÕ		PATEL, ET AL., "A Model Completion Queue Mechanisms Using the Virtual Interface API", IEEE, 2000, 280-288				
CÕ		REVESZ, "Parallel Graph-Reduction With a Shared Memory Multiprocessor System", Proceedings of the International Conference on Computer Languages, March 1990, New Orleans, LA				
CQ		RUDALICS, "Distributed Copying Garbage Collection", ACM, 1986, 364-372				
CÕ		VALOIS, "Lock-Free Data Structures, Internet Document: Doctor of Philosophy/Thesis, Online!, p.27, line 13", http://www.cs.rpi.edu/pub/caloisj/thesis.ps.gz, May 1995				
CÕ		WASHABAUGH, ET AL., "Incremental Garbage Collection of Concurrent Objects", IEEE, 1990, 21-30				
CÕ		WILSON, "Uniprocessor Garbage Collection Techniques", University of Texas, Date Unknown, Austin				
CÕ		YOUN, ET AL., "A Multithreaded Architecture for the Efficient Execution of Vector Computations within a Loop using", IEEE, 1996, 343-350				
CÕ		CHUANG, ET AL., "Real-Time Deques, Multihead Turing Machines, and Purely Functional Programming", ACM-FPCA '93, June 1993, 289-298, Copenhagen, Denmark				
CÕ		ENDO, ET AL., "A Scalable Mark-Sweep Garbage Collector on Large-Scale Shared-Memory Machines", Dept. of Information Science, Uni. of Tokyo, Date Unknown, Japan				
CÕ		YAMAMOTO, ET AL., "Comparing Reference Counting and Global Mark-and- Sweep on Parallel Computers", Dept. of Info. Science. University of Tokyo, Japan, Date Unknown, Japan				

Examiner /Camquy Truong/	Date Considered	05/03/2006
--------------------------	--------------------	------------